U.S. Department of Transportation
United States Coast Guard

G-SIA

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COMDTINST 5230.3
18 JUL 96

COMMANDANT INSTRUCTION 5230.3

Subj: YEAR 2000 IMPACT ON INFORMATION SYSTEMS

1. PURPOSE. This instruction establishes an awareness and timeline for evaluating and modifying software, file structures and hardware features to process dates beyond 31 December 1999.

2. ACTION. Area and District Commanders, Commanders of Maintenance and Logistics Commands, Commanding Officers of Headquarters units, Commandant(G-A, G-H, G-L, G-M, G-O, G-S, G-W), Director of the National Pollution Funds Center and special staff offices at Headquarters shall ensure compliance with this Instruction.

3. DIRECTIVES AFFECTED. None.

4. DEFINITIONS.

   a. Application: Software that automates a specific Coast Guard process or function. This software can be developed by or for the Coast Guard or purchased as commercial-off-the-shelf. It includes operational and communications software and software received from other government agencies. Application software in the Coast Guard runs on micro, mini and mainframe computers.

   b. Year 2000 Compliant: Software, data files and hardware that can successfully process dates beyond 31 December 1999 and process fiscal year 2000 transactions after 30 September 1999.

DISTRIBUTION – SDL No.

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NON-STANDARD DISTRIBUTION:

5. DISCUSSION.

a. In the early years of computing technology, computer memory was limited and data storage was expensive compared to today's prices. Consequently, standards were established for manipulating and storing calendar years as two digits (e.g., 1982 is depicted as 82.) This standard affects the way dates are compared, calculated, sorted and stored. Applications that use a two-digit year may incorrectly handle dates beyond 31 December 1999. For example, these applications will correctly compute the elapsed years between 1999 and 1943 as (99 - 43 = 56.) However, they will incorrectly compute elapsed years between 2000 and 1943 as (00 - 43 = -43.)

b. In the best-case scenario, these applications will visibly fail, thus drawing immediate attention to the problem. In the more likely scenario, applications will continue to process but produce erroneous results which, left undetected, may wreak havoc on customers and Coast Guard missions. In addition to application failures, embedded microchips in hardware may, in rare cases, not be designed to be Year 2000 Compliant. The year 2000 problem is unique in the history of information technology since the problem impacts virtually every organization and the drop-dead date for Year 2000 Compliance is nonnegotiable.

c. Some systems may need to process and store dates after 31 December 1999 or fiscal years after 1999 well in advance of these dates. Such systems should be examined as soon as possible for Year 2000 Compliance.

6. POLICY.

a. System managers shall test any nonstandard computer hardware and/or operating system that will be used after 31 December 1999 to ensure the hardware is Year 2000 Compliant. This testing generally entails changing the "system date" setting to a date beyond 31 December 1999.

b. Sponsors of applications that will be used after 31 December 1999 are responsible for ensuring that these applications are Year 2000 Compliant. This includes tasking software maintenance personnel to identify, modify, test, implement and document program code so that the applications can correctly process dates beyond 31 December 1999 and handle fiscal year 2000 transactions after 30 September 1999.

c. All applications in development shall be designed to be Year 2000 Compliant. Enclosure (1) contains suggested language that should be included in any Statement of Work for software. Mission essential applications that are being converted under the Standard Workstation III Software Conversion project are being modified to be Year 2000 Compliant. Thus, sponsors need not take action on the converted applications; however, the existing applications should be examined for problems identified in paragraph 5.c.

d. Prior to purchasing commercial-off-the-shelf software that uses dates, purchasers shall ensure the software is Year 2000 Compliant. This may require a call to the vendor and, if necessary, a demonstration.

e. Sponsors are responsible for ensuring their applications and nonstandard hardware are Year 2000 Compliant. The Department of Transportation Information Technology Omnibus Procurement (ITOP) contract is available for quick access to a source of programmers and analysts for software modification.

f. Commandant(G-SCC) will test Standard Workstation II and III hardware, the standard software suite for those workstations and any commonly used desktop productivity and database software for those workstations. Commandant(G-SCC) will distribute their findings and suggest methods to bring this software into Year 2000 Compliance.

7. PROCEDURES. Contact Commandant(G-SIA) at 202-267-1307 for assistance or questions on policy.

/s/ D. A. POTTER
Acting Chief,
Information and Technology

Encl: (1) Suggested Language for Statements of Work to Ensure Year 2000 Compliance

Suggested Language for Statements of Work to Ensure Year 2000 Compliance

Contractor shall ensure that all software developed or modified under this contract shall automatically and correctly process date and date-related functions (including algorithms, comparisons and sequencing) through 31 December 2100 without the need for an interruption of service or manual intervention.